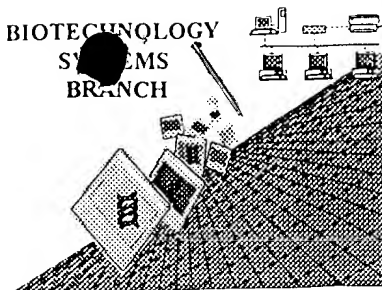


C. Myers

BIOTECHNOLOGY
SYSTEMS
BRANCH



#13 1/2

RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 08/974,584A

Source: 1655

Date Processed by STIC: 3-19-01

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.

PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax)

PATENTIN 3.0 e-mail help: patin3help@uspto.gov or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 3.0 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW:

Checker Version 3.0

The Checker Version 3.0 application is a state-of-the-art Windows based software program employing a logical and intuitive user-interface to check whether a sequence listing is in compliance with format and content rules. Checker Version 3.0 works for sequence listings generated for the original version of 37 CFR §§1.821 - 1.825 effective October 1, 1990 (old rules) and the revised version (new rules) effective July 1, 1998 as well as World Intellectual Property Organization (WIPO) Standard ST.25.

Checker Version 3.0 replaces the previous DOS-based version of Checker, and is Y2K-compliant. Checker allows public users to check sequence listings in Computer Readable form (CRF) before submitting them to the United States Patent and Trademark Office (USPTO). Use of Checker prior to filing the sequence listing is expected to result in fewer errored sequence listings, thus saving time and money.

Checker Version 3.0 can be down loaded from the USPTO website at the following address:

<http://www.uspto.gov/web/offices/pac/checker>

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TECHNICAL CENTER
1-800-290-2900

1655

RAW SEQUENCE LISTING
 PATENT APPLICATION: US/08/974,584A DATE: 03/19/2001
 TIME: 10:11:47

Input Set : A:\-29-5us.app
 Output Set: N:\CRF3\03192001\H974584A.raw

SEQUENCE LISTING

4 (1) GENERAL INFORMATION:

6 (i) APPLICANT: Cech, Thomas R.
 7 Lingner, Joachim
 8 Nakamura, Toru
 9 Chapman, Karen B.
 10 Morin, Gregg B.
 11 Harley, Calvin B.
 12 Andrews, William H.

14 (ii) TITLE OF INVENTION: Telomerase Reverse Transcriptase

16 (iii) NUMBER OF SEQUENCES: 476

18 (iv) CORRESPONDENCE ADDRESS:

19 (A) ADDRESSEE: Townsend and Townsend and Crew LLP
 20 (B) STREET: Two Embarcadero Center, Eighth Floor
 21 (C) CITY: San Francisco
 22 (D) STATE: California
 23 (E) COUNTRY: USA
 24 (F) ZIP: 94111-3834

26 (v) COMPUTER READABLE FORM:

27 (A) MEDIUM TYPE: Floppy disk
 28 (B) COMPUTER: IBM PC compatible
 29 (C) OPERATING SYSTEM: PC-DOS/MS-DOS
 30 (D) SOFTWARE: PatentIn Release #1.0, Version #1.30

32 (vi) CURRENT APPLICATION DATA:

C--> 33 (A) APPLICATION NUMBER: US/08/974,584A
 C--> 34 (B) FILING DATE: 19-Nov-1997
 35 (C) CLASSIFICATION:

73 (vii) PRIOR APPLICATION DATA:

38 (A) APPLICATION NUMBER: US 08/724,643
 39 (B) FILING DATE: 01-OCT-1996
 42 (A) APPLICATION NUMBER: US 08/844,419
 43 (B) FILING DATE: 18-APR-1997
 46 (A) APPLICATION NUMBER: US 08/846,017
 47 (B) FILING DATE: 25-APR-1997
 50 (A) APPLICATION NUMBER: US 08/851,843
 51 (B) FILING DATE: 06-MAY-1997
 54 (A) APPLICATION NUMBER: US 08/854,050
 55 (B) FILING DATE: 09-MAY-1997
 58 (A) APPLICATION NUMBER: US 08/911,312
 59 (B) FILING DATE: 14-AUG-1997
 62 (A) APPLICATION NUMBER: US 08/912,951
 63 (B) FILING DATE: 14-AUG-1997
 66 (A) APPLICATION NUMBER: US 08/915,503
 67 (B) FILING DATE: 14-AUG-1997
 70 (A) APPLICATION NUMBER: WO PCT/US97/17618
 71 (B) FILING DATE: 01-OCT-1997
 74 (A) APPLICATION NUMBER: WO PCT/US97/17885

Does Not Comply
 Corrected Diskette Needed

See p. 2

RAW SEQUENCE LISTING
 PATENT APPLICATION: US/08/974,584A
 DATE: 03/19/2001
 TIME: 10:11:47

Input Set : A:\-29-Sus.app
 Output Set: N:\CRF3\03192001\H974584A.raw

75 (B) FILING DATE: 01-OCT-1997
 77 (viii) ATTORNEY/AGENT INFORMATION:
 78 (A) NAME: Einhorn, Gregory P.
 79 (B) REGISTRATION NUMBER: 38,440
 80 (C) REFERENCE/DOCKET NUMBER: 015389-002950US
 82 (ix) TELECOMMUNICATION INFORMATION:
 83 (A) TELEPHONE: (415) 576-0200
 84 (B) TELEFAX: (415) 576-0300

ERRORED SEQUENCES

5488 (2) INFORMATION FOR SEQ ID NO: 115:
 5490 (i) SEQUENCE CHARACTERISTICS:
 5491 (A) LENGTH: 27 amino acids
 5492 (B) TYPE: amino acid
 5493 (C) STRANDEDNESS:
 5494 (D) TOPOLOGY: linear
 5496 (ii) MOLECULE TYPE: peptide
 5499 (ix) FEATURE:
 5500 (A) NAME/KEY: Modified-site
 5501 (B) LOCATION: 18
 5502 (D) OTHER INFORMATION: /product= "OTHER"
 5503 /note= "Xaa = hydrophobic amino acid,
 5504 selected from Ala, Leu, Ile, Val, Pro,
 5505 Phe, Trp or Met"
 5507 (ix) FEATURE:
 5508 (A) NAME/KEY: Modified-site
 5509 (B) LOCATION: 22
 5510 (D) OTHER INFORMATION: /product= "OTHER"
 5511 /note= "Xaa = hydrophobic amino acid,
 5512 selected from Ala, Leu, Ile, Val, Pro,
 5513 Phe, Trp or Met"

E--> 5516 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 116:
 W--> 5518 Lys Xaa Tyr Xaa Gln Xaa Xaa Gly Ile Pro Gln Gly Ser Xaa Leu Ser
 5519 1 5 10 15
 W--> 5521 Xaa Xaa Leu Xaa Xaa Xaa Tyr Xaa Asp Leu
 5522 20 25

wrong seq i.d. number

115?

VERIFICATION SUMMARY

DATE: 03/19/2001

PATENT APPLICATION: US/08/974,584A

TIME: 10:11:51

Input Set : A:\-29-5us.app

Output Set: N:\CRF3\03192001\H974584A.raw

L:33 M:220 C: Keyword misspelled or invalid format, [(A) APPLICATION NUMBER:]
L:34 M:220 C: Keyword misspelled or invalid format, [(B) FILING DATE:]
L:744 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
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L:756 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:759 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
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L:786 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:789 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
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L:807 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
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L:813 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:816 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
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L:828 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:831 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:834 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:837 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:840 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:843 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
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L:852 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
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L:870 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
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L:876 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:879 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4

VERIFICATION SUMMARY

DATE: 03/19/2001

PATENT APPLICATION: US/08/974,584A

TIME: 10:11:51

Input Set : A:\-29-5us.app

Output Set: N:\CRF3\03192001\H974584A.raw

L:882 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:885 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:888 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:891 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:948 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=5, Value={DNA}
L:1598 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=22, Value={DNA}
L:1729 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=28, Value={DNA}
L:1745 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=29, Value={DNA}
L:1761 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=30, Value={DNA}
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L:1859 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=36, Value={DNA}
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L:1955 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=42, Value={DNA}
L:1971 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=43, Value={RNA}
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L:2052 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=48, Value={DNA}
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L:3681 M:361 W: Invalid Split Codon, Sequence data for SEQ ID#: 68
L:3705 M:361 W: Invalid Split Codon, Sequence data for SEQ ID#: 68
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VERIFICATION SUMMARY

DATE: 03/19/2001

PATENT APPLICATION: US/08/974,584A

TIME: 10:11:51

Input Set : A:\-29-5us.app

Output Set: N:\CRF3\03192001\H974584A.raw

L:4578 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=87, Value=[DNA]
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L:4690 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=94, Value=[DNA]
L:4706 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=95, Value=[DNA]
L:4722 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=96, Value=[DNA]
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L:5103 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=103, Value=[DNA]
L:5119 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=104, Value=[DNA]
L:5135 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=105, Value=[DNA]
L:5516 M:212 E: (34) Invalid or duplicate Sequence ID Number, Data=[116:]